

Work Order ID 73722

Wednesday, September 14, 2011 12:03:32 P

Page 1

Item ID: D3294-1

Accept

Revision ID:

Item Name: Bracket

Start Date: 9/14/2011 Start Qty: 8.00

Required Date: 9/16/2011 Req'd Qty: 8.00

Reference:

Approvals:

Process Plan:

Date: 11-09-14 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3294

Rev C

100

0.00

Waterjet

FLOW CNC Waterjet

2024.080

Memo

1-Cut as per Dwg D3294

Cut File D3294-3

Dwg Rev: E

Prog Rev: E

*grain direction on a 45 deg as per dwg**

2-Deburr if necessary

0.00

110

QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Quality Control

Memo

0.00

11-9-26

11-9-26

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 73722

Wednesday, September 14, 2011 12:03:32 P



Page 4

Item ID: D3294-1

Accept



Setup Start



Revision ID:

Item Name: Bracket

Stop



Start Date: 9/14/2011 Start Qty: 8.00



Cust Item ID:

Required Date: 9/16/2011 Req'd Qty: 8.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 uloloz



190

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00



Powdercoat

Powder Coating

Memo

Start Time:

Oven Temperature:

Finish Time:

0.00

M115128

7:30
320
8:00

0.00

200

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

8X Ø M-11/10/04

8 Ø 10 11/10/04
COOK

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 73722

Page 5

Wednesday, September 14, 2011 12:03:32 P

Item ID: D3294-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Bracket

Start Date: 9/14/2011 Start Qty: 8.00



Cust Item ID:

Required Date: 9/16/2011 Req'd Qty: 8.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

Identify as per dwg & Stock Location: *8-212* 0.00

Packaging

Memo

0.00

Packaging

*(8x)**8-212 11-10-4*

220

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*11/10/5**MF 11-10-4*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 14, 2011 12:03:29 PM

Page 1

Work Order ID: 73722

Parent Item: D3294-1

Parent Item Name: Bracket



Start Date: 9/14/2011

Required Date: 9/16/2011

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP ☐ A ☐ 04.08.24 ☐ New issue ☐ KJ/JLM ☐
 IPP Rev:B Now On Waterjet 07-03-26 JLM
 IPP Rev:C 08-07-16 Redesign part DD verified by:EC
 IPP Rev:D 08-10-06 revB as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.080		Purchased	No			100	sf	197.3000	1.8	15.15789	20		



2024-T3 .080 sheet



IB11-9-25

Location	Loc Qty	Loc Code
MAT022	197.3	
105411	6	
109424	4	
110347	0.5	
112331	3	
113796	7	
114025	15.7	
116604	5.8	
117392	40.1	
118180	115.2	

D3294-5

Manufactured No

170 Each

17.0000

1

8



Doubler



Location	Loc Qty	Loc Code
GA	17	
68359	4	
69525	13	

118180
 8/11/10/03
 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

Wednesday, September 14, 2011 12:03:29 PM

Work Order ID: 73722



Parent Item: D3294-1



Parent Item Name: Bracket

Start Date: 9/14/2011

Required Date: 9/16/2011

Start Qty: 8.00

Required Qty: 8.00

MS20470AD4-5

Purchased

No

170

Each

2,768.000

15

120



Rivet, Universal Head

Location

Loc Qty

Loc Code

ST319

2768

118405

2768

[Handwritten signature]

[Handwritten: 120]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	73722
Description: Bracket Assembly		Part Number:	D3294-1
Inspection Dwg: D3294	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	.131	2		V B02	
Ø0.141	+0.005/-0.001	.142	2		V	
6.708	+/-0.010	6.711	2		V	
1.118	+/-0.010	1.117	2		V	
5.590	+/-0.010	5.591	2		V	
1.118	+/-0.010	1.118	2		V	
13.563	+/-0.010	13.563	2		T	
1.043	+/-0.010	1.041	2		V	
0.625	+/-0.010	.624	2		V	
0.325	+/-0.010	.323	2		V	
0.300	+/-0.010	.300	2		V	
0.400	+/-0.010	.401	2		V	
6.000	+/-0.010	6.001	2		V	
1.000	+/-0.010	.998	2		V	
17.124	+/-0.010	17.124	2		T	
16.13	+/-0.030	16.13	2		T	
7.27	+/-0.030	7.275	2		V	
11.97	+/-0.030	11.97	2		T	
8.37	+/-0.030	8.370	2		V	
20.05	+/-0.030	20.05	2		T	
12.98	+/-0.030	12.98	2		T	
14.59	+/-0.030	14.59	2		T	
11.66	+/-0.030	11.66			T	
0.080	+/-0.010	.079	x		V	

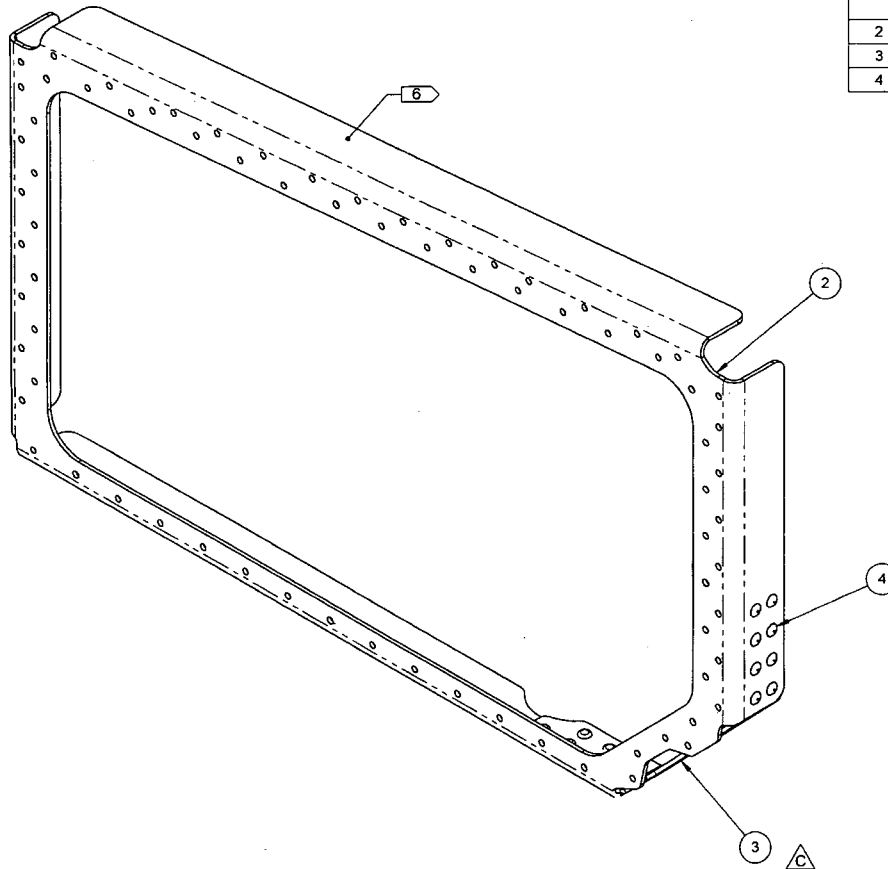
Measured by:	RB
Date:	11-9-26

Audited by:	S
Date:	11/2/27

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.08.24	New Issue	KJ/JLM	
B	06.03.09	Dimension 12.97 was 13.03	KJ/JLM	
C	08.11.27	Dimensions updated per Dwg Rev B	KJ/EC	
D	09.07.29	Dimension 2.100 was 2.072	KJ	
E	09.09.14	Dimensions updated per Dwg Rev C	KJ	

ITEM NO.	QTY. -1	PART NUMBER	DESCRIPTION
1	X	D3294-1	BRACKET ASSEMBLY
2	1	D3294-3	BRACKET
3	1	D3294-5	DOUBLER
4	15	MS20470AD4-5	RIVET



D3294-1 BRACKET ASSEMBLY

NOTES:

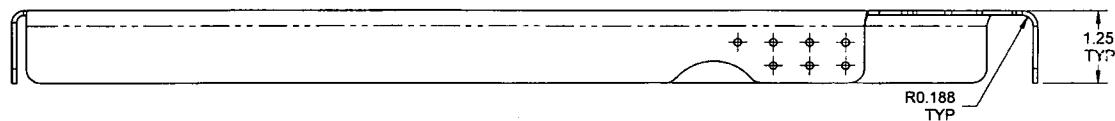
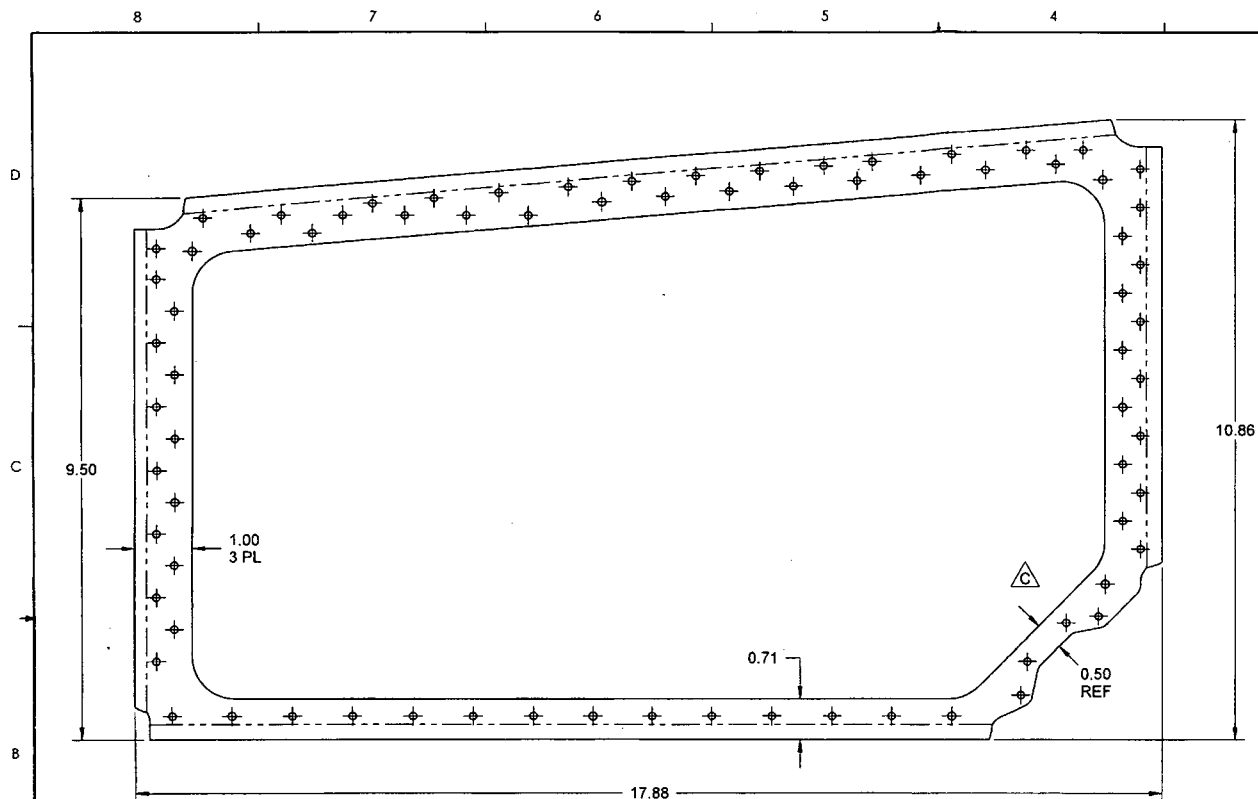
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "BLACK" (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3294-1 AND B/N" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.83 lbs

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 73722

11-09-14

RELEASED
09/21/14

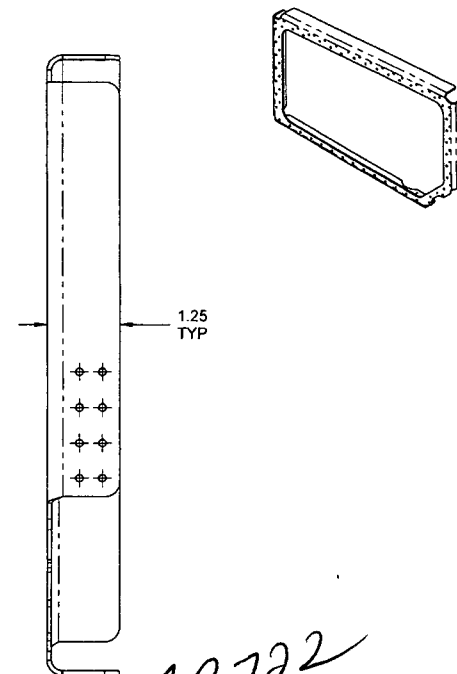
C	REMOVE FLANGE PREVIOUSLY ADDED. ADD -5 DOUBLER ZN A4-1, SHEET 5+6.	<i>[Signature]</i>	09.03.24
B	CHANGE FLANGE FROM OUTSIDE TO INSIDE, ZN B4-1, C3-2. CHANGE GRAIN DIRECTION, ZN C4-2	HS	08.09.22
A	NEW ISSUE	CP	04.06.28
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3294	SHEET 1 OF 6
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BRACKET	NTS
DATE	09.03.24	<small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



D3294-3 BRACKET
MADE FROM D3294-3F

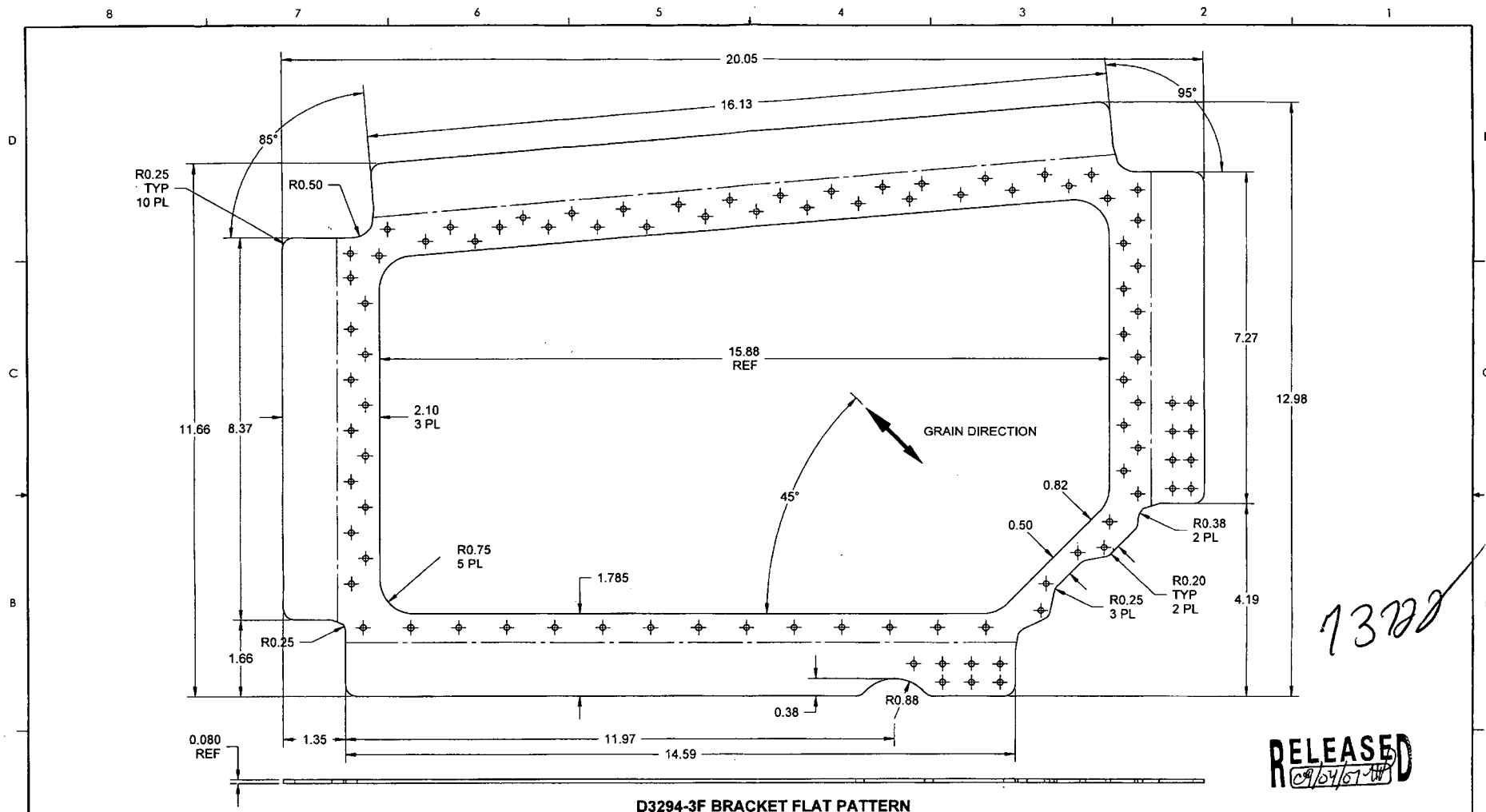
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.75 lbs



RELEASED
09/03/24

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3294	REV. C
MFG. APPR.			SHEET 2 OF 6
APPROVED		TITLE BRACKET	SCALE
DE APPR.			NTS
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NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET 0.080 THICK PER AMS-QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S.080)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.75 lbs

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
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MFG. APPR.		D3294	SHEET 3 OF 6
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8 7 6 5 4 3 2 1

D

D

C

C

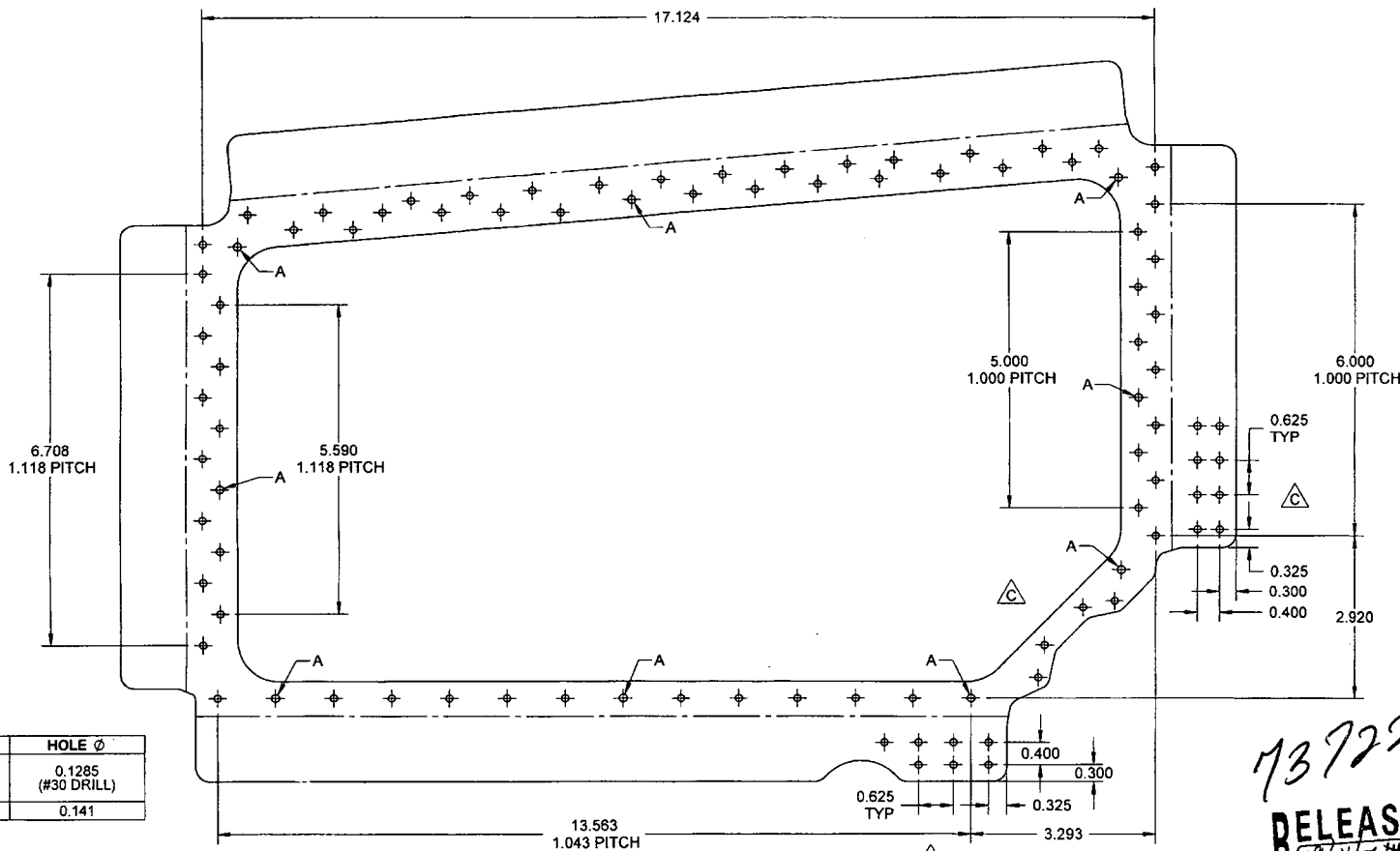
B

B

A

A

LABEL	HOLE Ø
ALL HOLES UNLESS NOTED	0.1285 (#30 DRILL)
A	0.141

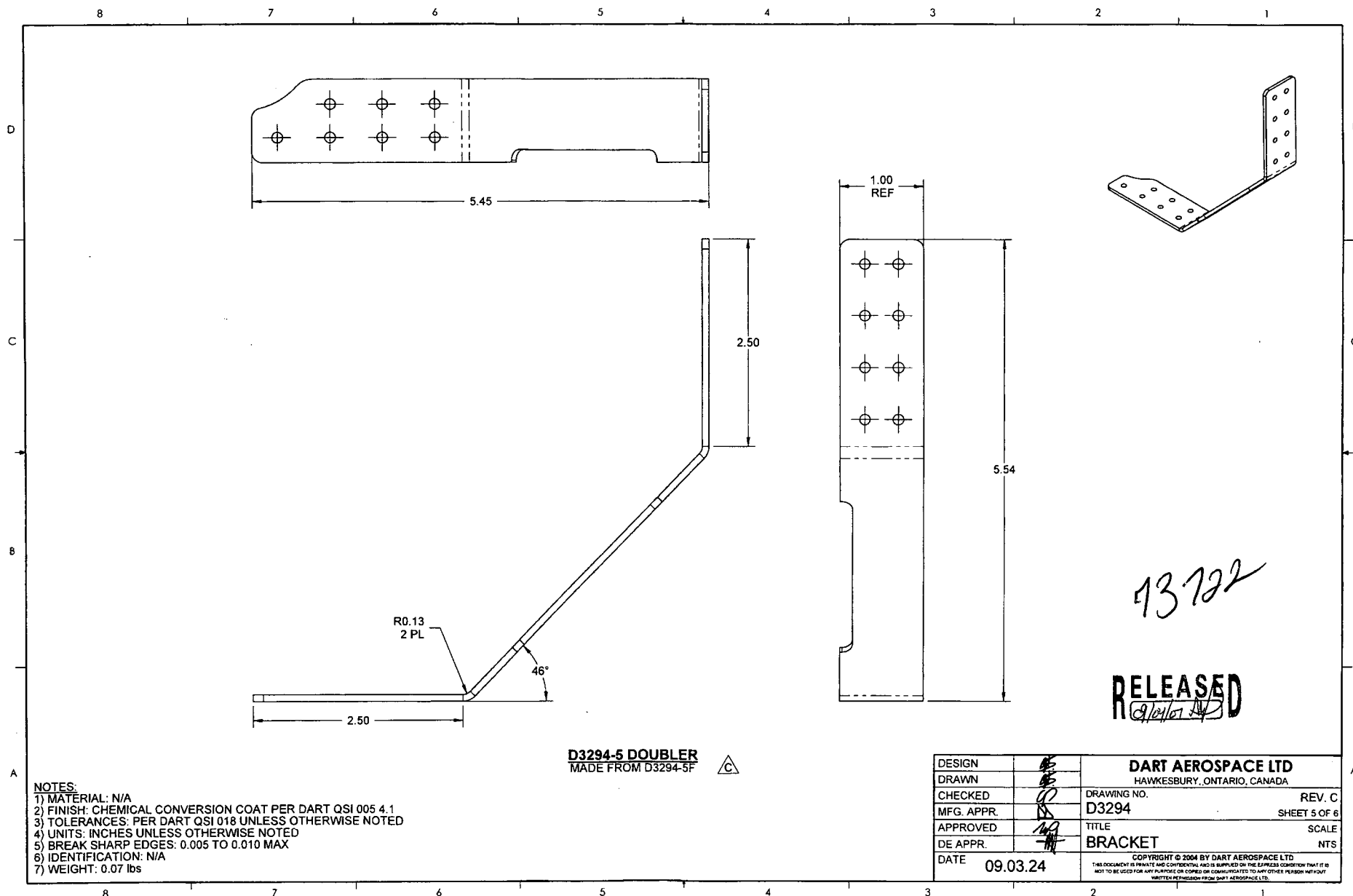


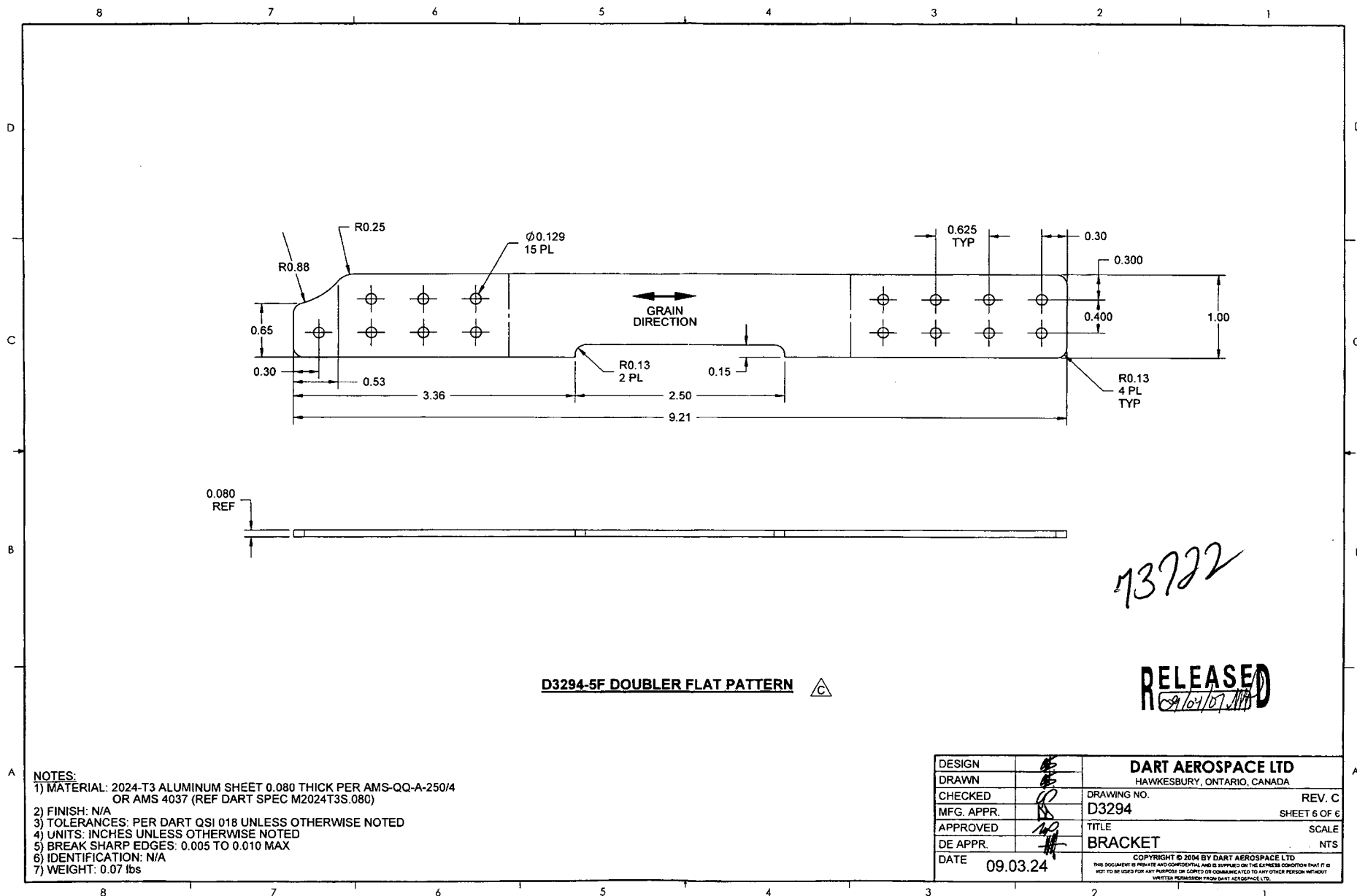
D3294-3F BRACKET FLAT PATTERN
SUPPLEMENTAL

173722
RELEASED
07/05/14

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3294	REV. C
MFG. APPR.		TITLE	SHEET 4 OF 6
APPROVED		BRACKET	SCALE
DE APPR.			NTS
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8 7 6 5 4 3 2 1





13722

RELEASED
 09/04/07